32. A method for displaying an image, comprising:

(a) providing light comprised of a first color component, a second color component, and a third color component;

(b) converting said light to a single polarization state;

(c) separating said first color component from said second and third color components while said first, second, and third color components are in the same beam;

(d) changing said polarization state of said second color component relative to said third color component while said second and third color components are within the same beam;

(e) separating said second color component from said third color component while said second and third color components are within the same beam;

(f) generating respective images from each of said first, second, and third color components separated from one another into different beams; and

(g) projecting said images.

REMARKS

The Examiner objected to claims 5, 7, and 12 and being of improper dependent form. To most easily overcome the Examiner's objection, claims 5, 7, and 12 have been canceled, without prejudice.

The Examiner rejected claim 1 as being indefinite. Claim 1 has been amended to provide antecedent basis.

The Examiner rejected claims 1 and 17 as omitting essential structural cooperative relationships of elements. Claims 1 and 17 have been amended to provide additional cooperative relationships.

The Examiner rejected claims 1-6 under 35 U.S.C. Section 103(a) as being unpatentable over Huang et al. (U.S. Patent No. 6,304,302) (J. Huang) in view of Huang et al. (U.S. Patent No. 6,309,071) (A. Huang).

As an initial matter, U.S. Patent No. 6,309,071 is not to be considered prior art under 35 U.S.C. Section 103(a), because of common ownership at the time the invention was made. See, MPEP 804.03. A statement of common ownership is hereby provided:

> U.S. Patent Application Serial Number 09/539,918 and U.S. Patent No. 6,309,071 were, at the time the invention of U.S. Patent Application Serial Number 09/539,918 was made, owned by Sharp Laboratories of America, Inc.

See, MPEP 706.02(I)(2).

J. Huang et al. disclose a projection system that includes a set of polarizing beam splitters, a ½ wave plate 305, a pair of optical films 302 and 304, a projection lens, and a set of liquid crystal panels. The arrangement disclosed by J. Huang et al. disclose yet another of a myriad of different architectures for a projection system based upon selectively reflecting and or

transmitting light based upon color and/or polarization state, such as the optical film that includes properties of both a polarizing beam splitter and a dichroic mirror.

The Examiner suggests that J. Huang includes a color component rotator by apparently considering a ½ wave plate 305 a color component rotator. The ½ wave plate 305 simply converts the polarization that of all light incident thereon from a P state to a S state, or from a S state to a P state. For example the ½ wave plate of FIG. 3 of J. Huang converts RPGP+BS to RSBS+BP. As previously mentioned, a ½ wave plate is a typical item included in common projection systems to change the polarization state of all the light incident thereon.

There is no suggestion in J. Huang to modify its architecture to include a color component rotator, as claimed in amended claims 1 and 17, nor how such a modification would be done. Moreover, there is no suggestion of changing the traditional approach of selectively reflecting and or transmitting light based upon color and/or polarization state to a system that includes the selective rotation of only a portion of the light incident thereon by a color component rotator.

Claims 1 and 17 patentability distinguish over J. Huang by claiming the color component rotator changes the polarization state of a first wavelength of the light incident thereon while being free from changing the polarization state of a second wavelength of light incident thereon.

Claims 2-4, 6, 8-12 and 18-31 depend from either claims 1 or 17 and are patentable for the same reasons asserted for the respective independent claim.

The Examiner rejected claims 32-43 under 35 U.S.C. 103(a) as being unpatentable over Hashizume (U.S. Patent No. 6,089,718).

Hashizume discloses a projection system where white light is polarized into a S state. The white light is incident on first dichroic mirror 210 that separates the red light from the green/blue light. The green/blue light is incident on a second dichroic mirror 121 that separates the green light from the blue light. The blue light strikes a mirror 222. Thereafter, the red, green and blue light are used to create an image.

Claim 32 patentability distinguishes over Hashizume, as amended, because Hashizume fails to suggest changing the polarization state of one color component relative to another color component while both color components are within the same beam, within the method claimed.

Claims 33-43 depend from claim 32 and are patentable for the same reasons asserted for claim 32.

The Examiner is respectfully requested to consider this amendment and to pass the patent application to issue.

Respectfully submitted,

Kevin L. Russell
Reg. No. 38,292
Attorneys for Applicant
Telephone: (503) 227-5631

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail postage prepaid in an envelope addressed to: Box Patent Application, Commissioner for Patents, Washington, D.C. 20231 on December 19, 2002.

Dated: December 19, 2002

Kevin L. Russell